



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/342,843	06/29/1999	JARNO KNUUTILA	200-008782-U	7170
20457	7590	02/10/2006		
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873			EXAMINER CHOW, CHARLES CHIANG	
			ART UNIT	PAPER NUMBER
			2685	

DATE MAILED: 02/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/342,843

Applicant(s)

KNUUTILA ET AL.

Examiner

Charles Chow

Art Unit

2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) 3,20,23,25 and 40 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19,39,42,45,48 and 50 is/are allowed.
- 6) ☒ Claim(s) 1,2,4-18,21,22,24,26-38,41,43,44,46,47 and 49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

**Detailed Action**  
(Response to amendment received 12/02/2005)

1. The dependency of claim 26 is incorrectly depending upon a canceled claim 25, and therefore, the dependency of claim 28 is incorrectly depending upon claim 26. A correction is required. For this office action, assuming claims 26 is depending upon claim 21.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 11-13, 15, 17-18, 31-33, 37, 44, 47 are rejected under 35 U.S.C. 102(e) as being anticipated by Peterson et al. (US 6,072,788).

Regarding **claim 11**, Peterson teaches a method and apparatus for controlling a transmitter of a portable radio communication apparatus [ Fig. 1, abstract, col. 2, lines 27-39, forward transmitting power control of mobile base transceiver station BTS], for communication in a radio communication network (TDMA) employing transmission by a plurality of carrier frequencies in frames [ the plurality of rf channels and interfering each other on user frequency channel, col. 4, lines 40-60; with number of burst period in a frame, col. 4, lines 24-39], each including a predetermined time slots, the transmitter transmitting data burst during one or more of said time slots in a frame [ the 3, 6, 8 time slot, burst period, per frame, col. 4, lines 61-67], the method comprising monitoring the number of of

Art Unit: 2685

data bursts transmitted on time slots in a frame, comparing the monitored number with a predetermined limit [ 2, 3 burst period] and

Peterson teaches the changing the operation of transmitter to decrease the transmission power level if the monitored number C/I ratio falls outside the predetermined limit [ col. 3, lines 24-36, the dynamically reducing, increasing, the power for different burst period, Fig. 5 & col. 9, lines 42-59].

Regarding **claim 12**, Peterson teaches the monitoring of the number of data burst transmitted on time slots in a frame is performed over a predetermined period of time or predetermined number of frames [ the monitoring of data burst in 2, 3 burst period, col. 12, lines 13-24; col. 4, lines 24-39; col. 4, lines 50-67].

Regarding **claim 13**, Peterson teaches the changing the operation of the transmitter comprises controlling of the output power of the transmitter [ the providing a changed different power control for the transmission power level, col. 12, lines 13-24].

Regarding **claim 15**, Peterson teaches the changing the operation of the transmitter comprises controlling the number of data bursts transmitted on time slots in a frame [ change between 2 or 3 burst period for different power output level, col. 12, lines 13-14].

Regarding **claims 17, 18**, Peterson teaches the monitoring is performed by the portable radio communication apparatus [ the mobile communication unit performs the monitoring, col. 2, lines 8-9, the communication device in col. 9, lines 2-18; the monitoring is performed in communication network TDMA network, col. 4, lines 14-20; col. 4, lines 40-49].

Regarding **claim 31**, Peterson teaches a method and apparatus for controlling a transmitter of a portable radio communication apparatus [ Fig. 1, abstract, col. 2, lines 27-39, forward transmitting power control of mobile base transceiver station BTS], for communication in a radio communication network (TDMA) employing transmission by a

Art Unit: 2685

plurality of carrier frequencies in frames [ the plurality of rf channels and interfering each other on user frequency channel, col. 4, lines 40-60; with number of burst period in a frame, col. 4, lines 24-39], each including a predetermined time slots, the transmitter transmitting data burst during one or more of said time slots in a frame [ the 3, 6, 8 time slot, burst period, per frame, col. 4, lines 61-67], the system including monitoring means for monitoring means for monitoring the number of data bursts transmitted on time slots in a frame, a comparator [ DCC 201] for comparing the monitored number of transmitted data bursts with a predetermined limit [ 2, 3 burst period], and a processor [DCC 201] for changing the operation of the transmitter if the monitored of transmitted data bursts falls outside the predetermined limit [ the comparing 2, 3 burst period limit; the DCC monitors all three burst period to adjust transmitting power level, col. 8, line 59 to col. 9, line 27; col. 9, lines 42-59; the number of transmitted data burst in a frame, col. 8, line 59 to col. 9, line 27; col. 9, lines 42 to col. 10, line 8; the independent transmitting output power level adjust for the 2 burst period, for the 3 burst period, col. 12, lines 13-24].

Peterson teaches the changing the operation of transmitter to decrease the transmission power level if the monitored number C/I ratio falls outside the predetermined limit [ col. 3, lines 24-36, the dynamically reducing, increasing, the power for different burst period, Fig. 5 & col. 9, lines 42-59].

Regarding **claim 32**, Peterson teaches the monitoring of the number of data burst transmitted on time slots in a frame is performed over a predetermined period of time or predetermined number of frames [the monitoring of the number of data burst in 2, 3 burst period in the frame, col. 12, lines 13-24; col. 4, lines 4-39; col. 4, lines 40-67].

Regarding **claims 33, 37**, Peterson teaches the processor [DCC 201] controls the power output of the transmitter [ col. 8, line 59 to col. 9, line 27; col. 9, lines 42 to col. 10, line 8];

Art Unit: 2685

the monitoring means, comparator and the processor [DCC 201, for monitoring the burst period to control the transmitting power level by switching to the appropriate burst period, col. 9, lines 19-27; col. 8, line 59 to col. 9, line 27; col. 9, lines 42 to col. 10, line 8].

Regarding **claims 44, 47**, Peterson teaches the monitoring is carried out during a transmission (the monitoring of data burst in 2 burst, 2 burs period during transmission, col. 12, lines 13-24].

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 4-5, 7-9, 16, 21-22, 24-25, 27-30, 41, 43, 46 are rejected under 35 U.S.C.

103(a) as being unpatentable over Peterson et al. (US 6,072,788) in view of Gilbert et al. (US 5,519,886).

Regarding **claim 1**, Peterson teaches a method and apparatus for controlling a transmitter of a portable radio communication apparatus [ Fig. 1, abstract, col. 2, lines 27-39, the forward transmitting power control of mobile base transceiver station BTS], for communication in a radio communication network (TDMA) employing transmission by a plurality of carrier frequencies in frames [ the plurality of rf channels and interfering each other on user frequency channel, col. 4, lines 40-60; with number of burst period in a frame, col. 4, lines 24-39],

each including a predetermined time slots, the transmitter transmitting data burst during one or more of said time slots in a frame [ the 3, 6, 8 time slot, burst period, per frame, col. 4, lines 61-67], comprising

Art Unit: 2685

the monitoring at least one criterion, C/I, or power level, associated with the transmitter [ the C/I in col. 3, lines 29-36; the monitoring & dynamically reducing, increasing, the power level of different burst period, col. 4, lines 8-10, Fig. 5 & col. 9, lines 42-59].

Peterson fails to teach the monitoring the criterion associated with heat generated by transmitter, and selectively adjusting the output of the transmitter in direct response to the at least one criterion associated with heat generated by the transmitter,

Gilbert et al. (Gilbert) teaches these features [ the monitoring of the temperature, heat, at 240 of the transmitter for the data transmission, the controller 210 selectively changes the data communication protocol, 222-224, based on the modification instruction 226 and the received temperature information, to delay the transmission of a portion of the message and/or segmenting a message for transmission, Fig. 2-3, col. 2, lines 50-65, abstract], in order to prevent the damage to the transmitter due to high temperature heating. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Peterson with Gilbert's temperature monitoring, in order to prevent the transmitter being damage by high temperature due to heating.

Regarding **claims 2, 22**, Peterson teaches the method in col. 14, line 59-col. 15, line 8].

Gilbert teaches the at least one monitored criterion comprises the temperature of the transmitter [ the temperature sensor 246 for monitoring the temperature of the rf power amplifier 244, Fig. 2, abstract], for reducing the heat in transmitter by reconfiguring of the transmitting parameter with smaller segmented packets, or delaying the transmitting packet, col. 4, lines 27-47].

Regarding **claims 4, 24**, Peterson teaches the monitored criterion comprises the at least one output criterion [ transmitting power level] comprises the power output of the transmitter [col. 12, lines 13-24].

Art Unit: 2685

Regarding **claims 5, 25**, Peterson teaches the if the monitored criterion exceeds a predetermined limit then the power output of the transmitter is decreased [ lower power adjustment, col. 3, lines 30-36]

Regarding **claims 7, 27**, Gilbert teaches the at least one output criterion comprises the number of data bursts transmitted in a frame (the criterion to segment the output message into smaller packets, portions, of the changing the transmission protocol, col. 4, lines 40-48).

Regarding **claims 8, 16, 28**, Gilbert teaches if monitored criterion exceeds predetermined limit then the number of data bursts transmitted in a frame is decreased; or the controlling of the number of data bursts transmitted on time slot frame comprising decreasing the number of data burst transmitted if the monitored number of transmitted data bursts exceeds a predetermined limit [ the segmenting of the message into smaller packets, portions, of the changing the transmission protocol, col. 4, lines 40-48].

Regarding **claims 9, 29, 30**, Peterson teaches the monitoring is performed by the portable radio communication apparatus [ the mobile communication unit performs the monitoring, col. 2, lines 8-9, the communication device in col. 9, lines 2-18; the monitoring is performed in communication network TDMA network, col. 4, lines 14-20; col. 4, lines 40-49].

Regarding **claim 21**, Peterson teaches a method and apparatus for controlling a transmitter of a portable radio communication apparatus [ Fig. 1, abstract, col. 2, lines 27-39, forward transmitting power control of mobile base transceiver station BTS], for communication in a radio communication network (TDMA) employing transmission by a plurality of carrier frequencies in frames [ the plurality of rf channels and interfering each other on user frequency channel, col. 4, lines 40-60; with number of burst period in a frame, col. 4, lines 24-39], each including a predetermined time slots, the transmitter transmitting



Art Unit: 2685

data burst during one or more of said time slots in a frame [ the 3, 6, 8 time slot, burst period, per frame, col. 4, lines 61-67],

the system including monitoring means for monitoring at least one criterion [C/I ratio] of the transmitter [ the DCC monitors all three burst period to adjust transmitting power level, col. 8, line 59 to col. 9, line 27; col. 9, lines 42-59; the monitoring of C/I in col. 3, lines 29-36],

at least one output criterion of the transmitter being responsive to the at least one monitored criterion, wherein one of the at least monitored criterion comprises the number of transmitted data burst in a frame [ the number of transmitted data burst in a frame, col. 8, line 59 to col. 9, line 27; col. 9, lines 42-59; the independent transmitting output power level adjust for the 2 burst period, for the 3 burst period, col. 12, lines 13-24],

Wherein if the monitored criterion C/I ratio exceeds a predetermined limit, C/I limit associated with cell overlapping, then the power output of the transmitter is decreased [ col. lines 24-30; the dynamically reducing, increasing, the power level of different burst period, col. 4, lines 8-10, Fig. 5 & col. 9, lines 42-59].

Peterson fails to teach the monitoring the criterion associated with the heat generated by the transmitter.

Gilbert teaches these features [ the monitoring of the temperature, heat, at 240 of the transmitter for the data transmission, the controller 210 selectively changes the data communication protocol, 222-224, based on the modification instruction 226 and the received temperature information, to delay the transmission of a portion of the message and/or segmenting a message for transmission, Fig. 2-3, col. 2, lines 50-65, abstract], in order to prevent the damage to the transmitter due to high temperature heating. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify

Peterson with Gilbert's temperature monitoring, in order to prevent the transmitter being damage by high temperature due to heating.

Regarding **claim 41**, Peterson teaches a method and apparatus for controlling a transmitter of a portable radio communication apparatus [ Fig. 1, abstract, col. 2, lines 27-39, forward transmitting power control of mobile base transceiver station BTS], for communication in a radio communication network (TDMA) employing transmission by a plurality of carrier frequencies in frames [ the plurality of rf channels and interfering each other on user frequency channel, col. 4, lines 40-60; with number of burst period in a frame, col. 4, lines 24-39],

each including a predetermined time slots, the apparatus having a transmitter for transmitting data burst during one or more of said time slots in a frame [ the 3, 6, 8 time slot, burst period, per frame, col. 4, lines 61-67],

including monitoring means for monitoring at least one criterion of the transmitter [ the DCC monitors all three burst period to adjust transmitting power level, col. 8, line 59 to col. 9, line 27; col. 9, lines 42-59],

at least one output criterion [power level] of the transmitter being responsive to the monitored criterion [C/I] to decrease the transmission power level [ the DCC monitors all three burst period to adjust transmitting power level, col. 8, line 59 to col. 9, line 59; the monitoring of C/I in col. 3, lines 29-36; the dynamically reducing the power level of different burst period, col. 4, lines 8-10, Fig. 5 & col. 9, lines 42-59],

wherein one of the at least monitored criterion comprises the number of transmitted data bursts in a frame [the DCC monitors all three burst period to adjust transmitting power level, col. 8, line 59 to col. 9, line 59].

Art Unit: 2685

Peterson fails to teach the monitoring the criterion associated with the heat generated by the transmitter.

Gilbert teaches these features [ the monitoring of the temperature, heat, at 240 of the transmitter for the data transmission, the controller 210 selectively changes the data communication protocol, 222-224, based on the modification instruction 226 and the received temperature information, to delay the transmission of a portion of the message and/or segmenting a message for transmission, Fig. 2-3, col. 2, lines 50-65, abstract], in order to prevent the damage to the transmitter due to high temperature heating. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Peterson with Gilbert's temperature monitoring, in order to prevent the transmitter being damage by high temperature due to heating.

Regarding **claims 43, 46, 49**, Peterson teaches the monitoring is carried out during a transmission (the monitoring of data burst in 2 burst, 2 burs period during transmission, col. 12, lines 13-24].

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson in view of Gilbert, as applied to claim 1 above, and further in view of Funk (US 6,169,884 B1)

Regarding **claim 10**, Peterson & Gilbert fail to teach the monitoring step is performed by the radio communication network. However, Funk teaches theses features, (the monitoring is located in modem, internet, associated with host computer, for the monitoring of the transmitting, receiving data for reducing transmitter power level, col. 4, lines 43-60, col. 6, lines 32-43). Funk teaches the reducing transmitter power by inserting brief pause and monitoring the transmitting, receiving, data at host computer, modem (col. 2, lines 1-32). Therefore, it would have been obvious to one of ordinary skill in the art at the time of

Art Unit: 2685

invention to upgrade Peterson & Gilbert with Funk's monitoring of transmitting data, in order to reduce the temperature of a transmitter.

5. Claims 6, 14, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson in view of Gilbert, as applied to claim 5 above, and further in view of Mitzlaff (US 4,636,741). Regarding **claims 6, 14, 26**, Peterson teaches the maximum available power output of the transmitter is decreased or controlling of the power output of the transmitter comprising changing the power class mark of the portable radio communication apparatus, However, Mitzlaff teaches these features, a multilevel power amplifying circuit for portable transceiver (title, abstract, figure in cover page). Upon detecting of the presence of vehicular adaptor, the maximum transmission output level of the transmitter is changed (as shown in abstract, Fig. 11, Fig. 13, summary of invention). Mitzlaff teaches the operational class of the transceiver is changed from class 1 to class 3 (as shown in col. 9, line 1-17). Mitzlaff teaches the transmission power level monitoring for maximum power level in order to change the power class between operating class 1 and class 3 (col. 8, line 51 to col. 9, line 45). Mitzlaff teaches a technique for switching the transmitter maximum output power between class 1 and class 3, such that the transmitter can efficiently control the transmitting power, by change the power class level. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Peterson with Mitzlaff's changing of the transmission maximum output power between class 1 and class 3, such that transmitter can efficiently control the transmitting power, by change the power class level.
6. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson in view of Mitzlaff-'741.

Regarding **claim 34**, Peterson fails to teach the features for this claim. Mitzlaff teaches the controlling of the power output of the transmitter comprising changing the power class mark of the portable radio communication apparatus [ a multilevel power amplifying circuit for portable transceiver, title, abstract, figure in cover page, the microcomputer in 120 for controlling the transmitter, col. 2, lines 49-52, the upon detecting of the presence of vehicular adaptor, the maximum transmission output level of the transmitter is changed (as shown in abstract, Fig. 11, Fig. 13, summary of invention; the operational class of the transceiver is changed from class 1 to class 3, col. 9, line 1-17; the transmission power level monitoring for maximum power level in order to change the power class between operating class 1 and class 3, col. 8, line 51 to col. 9, line 45], using the same reasoning from Mitzlaff above for combining with Peterson.

7. Claim 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson in view of Chen (US 6,607,458).

Regarding **claim 35**, Peterson fail to teach the processor control the number of data bursts transmitted on the time slot in a frame. Chen teaches these features [ the rate, number of bursts per unit time, and power level are controlled by processor 38, col. 9, lines 66-67].

Chen teaches the improved power control to match the correct transmission data rate (col. 1, line 28-61). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify with Chen's matching transmission rate for the power controlling, in order to correct transmission rate to match the transmission power level.

8. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson in view of Chen, as applied to claim 35 above, and further in view of Gilbert.

Art Unit: 2685

Regarding **claim 36**, Peterson & Chen fail to teach the features for this claim. Gilbert teaches the if monitored criterion exceeds predetermined limit then the number of data bursts transmitted in a frame is decreased; or the controlling of the number of data bursts transmitted on time slot frame comprising decreasing the number of data burst transmitted if the monitored number of transmitted data bursts exceeds a predetermined limit [ the segmenting of the message into smaller packets, portions, of the changing the transmission protocol, col. 4, lines 40-48], using the same reasoning above from Gilbert for combining to Peterson & Chen.

9. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson in view of Funk (US 6,169,884 B1).

Regarding **claim 38**, Peterson fails to teach the radio communication network including the monitoring means, comparator, and processor. Funk teaches the radio communication network (the network formed by modem 103, host computer 105, and radio 101) includes the monitoring means, comparator and processor (the microcomputer 109, processor, monitors, compares, the temperature to the high temperature threshold, the inserting brief pause intervals in data transmission, col. 4, lines 22-34, the monitoring of the transmitting, receiving data in the network formed by modem and host computer to insert pauses intervals, col. 4, lines 43-53). Funk teaches the reducing transmitter power by inserting brief pause and monitoring the transmitting, receiving, data at host computer, modem (col. 2, lines 1-32). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to upgrade Peterson with Funk's monitoring of transmitting data, in order to reduce the temperature of a transmitter.

**Allowable Subject Matter**

10. The following is an examiner's statement of reasons for allowance:

The cited references from Peterson, Gilbert, Nagoya are not disclosing the claimed features for the at least one monitoring criterion comprising the number of transmitted data bursts associated with the heat generated by the transmitter, and Gilbert, Nagoya are not combinable (pages 14-16 of applicant amendment).

Claims 19, 39, 42, 45, 48, 50 are allowable over the prior art of record, the prior art fails to teach singly, particularly, or in combination, having foreign priority benefit dated 6/30/1998, with the subject matter for the **monitoring at least one criterion associated with heat generated by the transmitter, and providing a signal responsive to the at least one monitored criterion for controlling at least one output criterion of the transmitter, and wherein one of the at least criterion comprising the number of transmitted data burst in a frame**, as shown in the independent claims 19, 39, 42, for the transmitting of multiple time slots in order to increase the data transfer capability, flexibility in the mobile communication network. The increasing data transfer, data rate, which causes the overdriven of the power amplifier of the mobile station. However, the mobile station still can cope this multiple time slot transmission, by monitoring the criterion, the number of transmitted data burst associated with the heat generated by the transmitter to reduce the number of transmitted data burst or by limiting, controlling, the maximum allowed output power level of the transmitter, in this way the size of the mobile station can be small without adding the heat sink. The dependent claims are also allowable due to their dependency upon the independent claims and having additional claimed features.

The closest patent to **Peterson (US 6,072,788)** teaches the monitoring of transmitting burst period control for number of burst in the transmitting period for controlling of the transmitter

Art Unit: 2685

output power lever; the 3, 6, 8 time slot, burst period, per frame [col. 4, lines 61-67]; the DCC monitors all three burst period to adjust transmitting power level [col. 8, line 59 to col. 9, line 27; col. 9, lines 42-59]; the number of transmitted data burst in a frame [col. 8, line 59 to col. 9, line 27; col. 9, lines 42-59]; the independent transmitting output power level adjust for the 2 burst period, for the 3 burst period [col. 12, lines 13-24].

**Gilbert et al. (US 5,519,886)** teaches the controlling the temperature of transmitter 242 via temperature sensor 246 (abstract, Fig. 2) in TDMA system, monitoring of the heat generated by the power amplifier 244 using the temperature sensor 246 (col. 2, lines 50-54), the unacceptable measured temperature provides a signal to modify, change, the transmission parameter (col. 4, lines 27-39), the output criterion for segmenting transmitted message into smaller packets, or for delaying the transmissions of messages or portions col. 4, lines 40-48). Gilbert fails to teach the monitored criterion comprising the number of transmitted data bursts in a frame.

Other prior arts in below has been considered, but they fail to teach the above claimed features.

**Nagoya et al. (US 5,854,971)** teaches Nagoya) teaches the burst monitor circuit 9 (Fig. 1) for monitoring of the burst period length having that number of communication bits as shown in Fig. 4A-4C, Fig. 6A, so as to synchronize the bursting bit period timing with amplifier output level controlled by the attenuator 1 via holding circuit 10 for the number of communication bits at the input to the power amplifier 2, to adjust the output power level of the power amplifier 2 (abstract, col. 6, lines 46-52; col. 7, lines 20-35, Fig. 4A-4C, Fig. 6A). Nagoya fails to teach the monitoring criterion comprising the number of transmitted data bursts, associated with the heat generated by the transmitter,



Art Unit: 2685

**Mitzlaff (US 4,636,741)** teaches the multilevel power amplifying circuit for portable transceiver (title, abstract, figure in cover page). Upon detecting of the presence of vehicular adaptor, the maximum transmission output level of the transmitter is changed (abstract, Fig. 11, Fig. 13, summary of invention), the operational class of the transceiver can be changed from class 1 to class 3 (col. 9, line 1-17; col. 8, line 51 to col. 9, line 45).

**Funk (US 6,169,884 B1)** teaches the monitoring function is located in modem, internet, associated with host computer, for the monitoring of the transmitting, receiving data for reducing transmitter power level (col. 4, lines 43-60, col. 6, lines 32-43; col. 2, lines 1-32).

**Mazur et al. (US 6,072,792)** teaches the monitoring of the transmitter power output level for controlling output power of the base station (abstract, col. 1, lines 1-17), the controlling of the downlink power for each time slot (col. 3, line 42-26).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Response to Arguments***

11. Applicant's arguments with respect to claims 1-2, 4-18, 21-22, 24, 26-38, 41, 43, 44, 46-47, 49 have been considered but are moot in view of the new ground(s) of rejection.

Regarding applicant's argument for the **no teachings from Peterson** for the monitoring criterion associated with heat generated by transmitter, and selectively adjusting the output of the transmitter in direct response to the at least one criterion associated with heat generated by the transmitter [pages 10-11 of applicant's amendment 12/02, 2005],

Gilbert-'886 teaches the monitoring criterion associated with heat generated by transmitter, and selectively adjusting the output of the transmitter in direct response to the at

Art Unit: 2685

least one criterion associated with heat generated by the transmitter [ the monitoring of the temperature, heat, at 240 of the transmitter for the data transmission, the controller 210 selectively changes the data communication protocol, 222-224, based on the modification instruction 226 and the received temperature information, to delay the transmission of a portion of the message and/or segmenting a message for transmission, Fig. 2-3, col. 2, lines 50-65, abstract].

Peterson teaches the changing of the operation of transmitter to decrease the transmission power level if the monitored number, C/I ratio, falls outside the predetermined limit [ col. 3, lines 24-36], the monitoring of power level in burst periods, for the dynamically reducing, increasing, of the power level for different burst period [ col. 8-10, Fig. 5 & col. 9, lines 42-59].

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2685

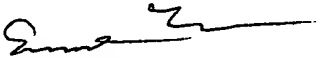
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles C. Chow whose telephone number is (571) 272-7889. The examiner can normally be reached on 8:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charles Chow *C.C.*

January 20, 2006.

  
EDWARD F. URBAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600